

IN THE CLAIMS:

Please amend the claims as follows:

1-12. (canceled)

13. (currently amended) A flexible foodstuff transfer installation comprising:

a transfer conveyer for transferring foodstuff, accommodated in a refrigeration room formed by a heat insulated room, and

a plurality of transfer pieces, each comprising a pair of erect ~~flat~~ spacer members made of plate material having an inside-part and outside-part, the erect spacer members connected to both end sides of connection members that constitute a transfer passage of articles including foodstuff, ~~are~~ the erect spacer members being connected to each other so as to be capable of moving in the direction of transfer relative to each other,

wherein a contact face bending outward is formed at both of upper and lower ends of the spacer member so that said transfer pieces comprising said pair of spacer members made of plate material can be piled in a vertical spiral by allowing an upper side positioned spacer member to rise on a spacer member positioned right under said upper side positioned spacer member via said bending contact face,

wherein a refrigerating machine having plate type heat exchangers disposed radially is installed in a space inside the spiral of the transfer conveyer for flowing cold heat radially outwardly to cool the foodstuff transferred on the transfer conveyer,



wherein said pair of spacer members are formed to have the outside-part and the inside-part continuing to the outside-part and offsetting outward in a lateral direction perpendicular to the transfer direction, and the distance of the offset of the outside-part from the inside-part in the lateral direction perpendicular to the transfer direction is determined so that the plate thickness of the inside-part is accommodated in the space defined between an inside surface of the outside-part and an extension of an inside surface of the inside-part when the transfer pieces are moved relative to each other.

~~wherein each spacer member has a contact face extending parallel to the transfer direction at the lower end thereof,~~

~~wherein an inside chain to allow one of the pair of the spacer members riding on the inside chain to move together with the inside chain and an outside chain to allow the other of the pair of the spacer members riding on the outside chain to move together with the outside chain are provided,~~

~~wherein each of the spacer members contacts the chain with said contact face to ride on the chain,~~

~~wherein the inside chain and outside chain are driven by a single motor via a drive shaft,~~

~~wherein said inside chain and outside chain are looped respectively over an inside sprocket and an outside sprocket driven by said single motor via the drive shaft, the chains being composed to be an endless chain respectively to allow the transfer pieces to be advanced to the spiral and then to return to the sprockets,~~



~~wherein a speed change gear drive is mounted in the drive shaft extending between the inside sprocket and outside sprocket to reduce the rotation speed of the inside sprocket to be slower than the rotation speed of the outside sprocket, and~~

~~wherein the spirally piled transfer conveyor is accommodated in a heat insulated room in which a refrigerating machine is installed, an endless transfer conveyor is composed by connecting the entrance and exit of the transfer conveyor to and from the heat insulated room, and the refrigerating machine is installed in a space formed inside the spiral of the spirally piled transfer conveyor.~~

14. (currently amended) The flexible foodstuff transfer installation according to claim 13,

wherein an inside chain to allow one of the pair of the spacer members riding on the inside chain to move together with the inside chain and an outside chain to allow the other of the pair of the spacer members riding on the outside chain to move together with the outside chain are provided, the inside chain being driven by a single motor via a drive shaft, and

wherein said inside chain and outside chain are looped respectively over an inside sprocket and an outside sprocket at an entrance of the spiral to allow the transfer pieces to be advanced to the spiral, the drive shaft of the inside sprocket and the outside sprocket extending to the outside of the heat insulated room to be connected to the drive motor located outside the heat insulated room.



~~wherein axes of rotation shafts to drive the sprockets are disposed horizontally.~~

15. (canceled)

16. (currently amended) The flexible foodstuff transfer installation according to claim 13, wherein a speed change gear drive is mounted in a drive shaft located at an entrance of the spiral, and the ratio of number of teeth of the inside gear connected to the inside sprocket to that of the outside gear connected to the outside sprocket is determined to coincide with the ratio of the curvature radius of the outside chain at the outside sprocket to that of the inside chain at the inside sprocket.

17. (currently amended) The flexible foodstuff transfer installation according to claim 13, wherein said inside chain and outside chain are composed to be curved chains deformable in lateral direction perpendicular to the direction along the transfer direction of the transfer passage.

18. (currently amended) The flexible foodstuff transfer installation according to claim 13, wherein are provided tension pulleys each to be looped over by the inside chain and outside chain at an upstream of the transfer direction from an entrance of the spiral, the inside chain and outside chain, at



the other side, being looped over and inside sprocket and an outside sprocket each connected to a drive shaft, and tension springs each to pull each tension pulley for tensioning the chains in a tangential direction to the spiral.

19. (currently amended) The flexible foodstuff transfer installation according to claim 13,

wherein a way-out portion of the transfer conveyer is disposed at one side of the heat insulated room provided with the refrigerating machine so that the transfer conveyer extends to be looped over sprockets at an outside of the heat insulated room, and the transfer conveyer also extends to an outside of the heat insulated room from an entrance portion of the heat insulated room opposite of the way-out portion to the looped over sprockets at the outside of the heat insulated room, and

wherein one pair of the sprockets is connected to an auxiliary motor.

~~wherein the single motor is installed outside the heat-insulated room.~~